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Customer Number

SEP 26 2005

Patent
Case No.: 57255US002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: CLARK, JOHN C.
Application No.: 09/997081 Group Art Unit: 1753
Filed: November 28, 2001 Examiner: Kishor Mayekar
Title: ELECTROPHORETICALLY DEPOSITED HYDROPHILIC COATINGS FOR FUEL
CELL DIFFUSER/CURRENT COLLECTOR

REPLY BRIEF ON APPEAL

Mail Stop: Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR § 1.8(a)]
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shown below to the United States Patent and Trademark Office at (703) 872-9306.

September 26, 2005
Date

Signed by: Philip Dahl

Dear Sir:

This is an appeal from the Office Action mailed on November 10, 2004, finally rejecting claims 1-11.

A Notice of Appeal in this application was mailed on March 10, 2005, and was received in the USPTO on March 10, 2005.

This Reply follows the Examiner's Answer mailed July 25, 2005.

It is believed that no fee is due; however, in the event a fee is required, please charge the fee to Deposit Account No. 13-3723.

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REPLY**The Examiner's Answer**

The Examiner's Answer asserts at paragraph 7 that "claims 1-11 stand or fall together" in this appeal, purporting to cite 37 CFR 1.192(c)(7). The Examiner cites a regulation that is no longer in force, as of September 13, 2004.

In the new regulation, 37 CFR 41.37, no requirement is made, nor is any provision made, for a statement regarding "grouping of claims." It follows that Appellants cannot be expected to include such a statement. In Appellant's Brief on Appeal and again in this Reply Brief, Appellants present arguments specific to each of various claims in response to each ground of rejection, and ask that each claim be considered individually on its merits.

The Examiner's Answer states at paragraph 1 that the Appellant's Brief on Appeal does not contain a statement identifying the Real Party in Interest. This is not so. The Appellant's Brief contains a statement identifying the Real Party in Interest at page 2, first heading, which reads, "Real Party In Interest."

The Examiner's Answer states at paragraph 2 that the Appellant's Brief on Appeal does not contain a statement identifying the related appeals and interferences. This is not so. The Appellant's Brief contains a statement identifying the Related Appeals and Interferences at page 2, second heading, which reads, "Related Appeals And Interferences."

First Ground of Rejection

Claims 1-11 stand rejected under 35 USC § 103(a) as purportedly unpatentable over Boccaccini in view of Bett.

As noted previously, neither Boccaccini nor Bett teach or suggest any use of a carbon fiber construction. The Examiner's Answer does not assert that Bett teaches or suggests the use of a carbon fiber construction, but asserts that Boccaccini does provide such a teaching in reciting the use of nickel-coated carbon fibers. These fibers are not a carbon fiber construction, such as, e.g., a cloth or non-woven construction. To the contrary, Boccaccini discloses that the fibers were in the form of "continuous tows," (Boccaccini at 102, col. 2, para. 3). This is not unexpected in the formation of fiber-reinforced ceramic and glass matrix composites, which are the topic of the

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Boccaccini reference. In contrast, the present invention concerns a hydrophilic carbon fiber construction that may be useful as a fuel cell gas diffusion layer.

Absent any teaching of the use of a carbon fiber construction, no prima facie case of obviousness has been established for these claims.

Claim 6

Claim 6 describes treatment of a carbon fiber construction with ZrO_2 . Appellants assert that neither Boccaccini nor Bett teach or suggest the use of ZrO_2 . The Examiner's Answer does not assert that Bett teaches or suggests the treatment of a carbon fiber construction with ZrO_2 , but asserts that Boccaccini does provide such a teaching in a tabular and bibliographic citation to another reference, which is not in itself enabling. Absent this teaching, no prima facie case of obviousness has been established for this claim.

Claim 7

Claim 7 describes treatment of a *woven carbon fiber construction*. Appellants assert that neither Boccaccini nor Bett teach or suggest any use of a woven carbon fiber construction. In response, the Examiner's Answer does not purport to cite any such teaching. Absent this teaching, no prima facie case of obviousness has been established for this claim.

Claim 8

Claim 8 describes treatment of a *non-woven carbon fiber construction*. Appellants assert that neither Boccaccini nor Bett teach or suggest any use of a non-woven carbon fiber construction. The Examiner's Answer does not assert that Bett teaches or suggests the use of a non-woven carbon fiber construction, but asserts that Boccaccini does provide such a teaching in a tabular and bibliographic citation to another reference, which is not in itself enabling. Absent this teaching, no prima facie case of obviousness has been established for this claim.

Claim 10

Claim 10 recites a method of making a hydrophilic carbon fiber construction capable of wicking 200mg of water per 40mg of the hydrophilic carbon fiber construction. Appellants

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assert that neither Boccaccini nor Bett teach or suggest a method of making a hydrophilic carbon fiber construction capable of wicking 200mg of water per 40mg of the hydrophilic carbon fiber construction. In response, the Examiner's Answer does not purport to cite any such teaching. Absent this teaching, no prima facie case of obviousness has been established for this claim.

Claim 11

Claim 11 recites a method of making a hydrophilic carbon fiber construction capable of wicking 250mg of water per 40mg of the hydrophilic carbon fiber construction. Appellants assert that neither Boccaccini nor Bett teach or suggest a method of making a hydrophilic carbon fiber construction capable of wicking 250mg of water per 40mg of the hydrophilic carbon fiber construction. In response, the Examiner's Answer does not purport to cite any such teaching. Absent this teaching, no prima facie case of obviousness has been established for this claim.

Second Ground of Rejection

Claims 1-11 stand rejected under 35 USC § 103(a) as purportedly unpatentable over Illston in view of Bett.

As noted previously, neither Illston nor Bett teach or suggest any use of a carbon fiber construction. The Examiner's Answer does not assert that Bett teaches or suggests the use of a carbon fiber construction, but asserts that Illston does provide such a teaching in reciting the use of ceramic fibers which may have a carbon coating. Illston teaches throughout the use of ceramic fibers, and concerns a "method of manufacturing a composite material which comprises ceramic fibers in a matrix of a ceramic material." (Illston at Abstract.) Absent any teaching of the use of a carbon fiber construction, no prima facie case of obviousness has been established for these claims.

Claim 6

Claim 6 describes treatment of a carbon fiber construction with ZrO_2 . Appellants assert that neither Illston nor Bett teach or suggest the use of ZrO_2 . In response, the Examiner's Answer

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does not purport to cite any such teaching. Absent this teaching, no prima facie case of obviousness has been established for this claim on this ground of rejection.

Claim 7

Claim 7 describes treatment of a *woven carbon fiber construction*. Appellants assert that neither Illston nor Bett teach or suggest any use of a woven carbon fiber construction. In response, the Examiner's Answer does not purport to cite any such teaching. Absent this teaching, no prima facie case of obviousness has been established for this claim.

Claim 8

Claim 8 describes treatment of a *non-woven carbon fiber construction*. Appellants assert that neither Illston nor Bett teach or suggest any use of a non-woven carbon fiber construction. In response, the Examiner's Answer does not purport to cite any such teaching. Absent this teaching, no prima facie case of obviousness has been established for this claim.

Claim 10

Claim 10 recites a method of making a hydrophilic carbon fiber construction capable of wicking 200mg of water per 40mg of the hydrophilic carbon fiber construction. Appellants assert that neither Illston nor Bett teach or suggest a method of making a hydrophilic carbon fiber construction capable of wicking 200mg of water per 40mg of the hydrophilic carbon fiber construction. In response, the Examiner's Answer does not purport to cite any such teaching. Absent this teaching, no prima facie case of obviousness has been established for this claim.

Claim 11

Claim 11 recites a method of making a hydrophilic carbon fiber construction capable of wicking 250mg of water per 40mg of the hydrophilic carbon fiber construction. Appellants assert that neither Illston nor Bett teach or suggest a method of making a hydrophilic carbon fiber construction capable of wicking 250mg of water per 40mg of the hydrophilic carbon fiber construction. In response, the Examiner's Answer does not purport to cite any such teaching. Absent this teaching, no prima facie case of obviousness has been established for this claim.

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CONCLUSION

For the foregoing reasons, appellants respectfully submit that the Examiner has erred in rejecting this application. Please reverse the Examiner on all counts.

Respectfully submitted,

September 26, 2005

Date

By: 

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